

The U.S. Tariff Paradox

Mirza Khidasheli

Doctor of Business Administration, Professor, Central University of Europe

Mirza.khidasheli@cue.edu.ge

Abstract

The imposition of significant tariffs by the United States since 2018 presented a unique economic puzzle, challenging the conventional view that such trade barriers would inevitably lead to broad and sustained domestic inflation. This report, analyzing the recent U.S. experience, identifies and explains this phenomenon, which has been termed the "U.S. Tariff Paradox." While standard trade theory posits a direct inflationary channel—where tariffs raise the cost of imported goods, which is then passed through to consumers—the empirical evidence subsequent periods indicates a much more complex reality.

The central finding of this analysis is that the potential inflationary impact of these tariffs was overwhelmingly neutralized by a confluence of powerful economic mechanisms and overshadowed by more dominant macroeconomic forces. The report details four primary mitigating factors: a strengthening U.S. dollar, which offset higher import costs; strategic responses by firms and consumers, including cost absorption and substitution toward non-tariffed goods; the inherently limited scope of the tariff actions relative to the total U.S. consumption basket; and, most critically, the overwhelming influence of external shocks, such as pandemic-era supply chain disruptions and energy price volatility, which dwarfed any tariff-induced price pressures.

Ultimately, this report concludes that tariffs do not automatically translate into broad-based inflation. The U.S. case study demonstrates that a holistic assessment of trade policy is essential, one that extends beyond short-term price effects to consider the structural and behavioral dynamics of the economy, as well as the long-term consequences for productivity, supply chain resilience, and international relations.

Keywords: Tariffs, Inflation, Trade policy.

JEL Classification: F13, E31, D22

DOI: 10.52244/c2025.5

Introduction

Tariffs are widely understood in standard trade and price theory to raise the domestic cost of imported goods and, through pass-through and input-cost channels, to exert upward pressure on consumer prices (Amiti, Redding, & Weinstein, 2019). Yet the recent U.S. experience presents a puzzle: large tariff actions since 2018 coincided with only modest, sector-limited price effects in headline inflation measures, prompting debate about why tariff policy has not translated into broad, sustained inflationary pressure. This paper asks: **Why have recent U.S. tariff policies not caused significant aggregate inflation?** In asking this question I place the tariff waves and more recent tariff episodes in conversation with empirical work on pass-through, macro drivers of inflation, and firm-level pricing responses.

Two facts motivate the investigation. First, the United States implemented a substantial set of tariff increases beginning in 2018 (steel, aluminum, large Section 301 actions on China, and later tariff expansions), changing protection on a wide set of goods and supply chains. These policy moves are well documented in official summaries and Congressional Research Service (CRS) overviews. Second, the large run-up in headline inflation in 2021–22 (CPI peaked at 9.1% year-over-year in June 2022) has been attributed by researchers and policymakers mainly to pandemic-era supply-chain constraints, energy shocks, and aggregate demand/monetary-policy interactions rather than to tariff policy as the primary driver. My paper therefore examines (a) the empirical size and timing of tariff pass-through to import, producer, and consumer prices, (b) the economic mechanisms that can mute or amplify tariff effects (exchange rates, substitution, inventorying, corporate margin adjustments), and (c) why those mechanisms appear to have produced only limited aggregate inflationary consequences in the U.S. case. (FED 2025, BLS 2023)

Background & Common Assumptions

Tariffs are traditionally viewed as a direct driver of inflation through multiple economic channels. The **basic economic intuition** is that when a government imposes a tariff on imported goods, the immediate effect is an increase in the domestic cost of those goods. Producers who rely on imported inputs may face higher production costs, which can be passed along to consumers in the form of higher prices (Feenstra, 2015). This mechanism, known as **import price pass-through**, is widely documented in both theoretical and empirical literature, though its magnitude varies across sectors and over time.

Historically, U.S. tariff actions have often been associated with limited or temporary inflationary impacts. For instance, the tariff increases in the early 2000s on steel and aluminum had measurable effects on the affected sectors but did not lead to sustained increases in overall consumer prices (Bown, 2019). This suggests that while tariffs can influence prices at the microeconomic level, the macroeconomic effects on aggregate inflation are less predictable and are often mitigated by **substitution effects**, **exchange rate adjustments**, and **corporate pricing strategies** (Gamberoni, Lanz, & Piermartini, 2010).

The most recent wave of tariffs in 2018–2019, particularly the Section 301 tariffs on China, reignited concerns that trade protectionism could stoke broader inflation. However, several institutional and macroeconomic factors complicated this relationship. First, the U.S. dollar remained relatively strong, which helped offset the higher costs of imported goods (Obstfeld & Rogoff, 2020). Second, firms often **absorbed tariff costs** rather than passing them fully onto consumers to maintain competitiveness in domestic and global markets (Fajgelbaum et al., 2020). Finally, the broader inflationary environment during this period was influenced by global supply chain shocks, energy price volatility, and pandemic-related disruptions, which often dwarfed any incremental price pressures from tariffs (Coibion et al., 2022).

These patterns challenge the conventional assumption that tariffs are automatically inflationary at the aggregate level. Understanding why recent U.S. tariffs did not trigger sustained inflation requires careful examination of both the direct effects on prices and the mitigating mechanisms that can neutralize potential pass-through.

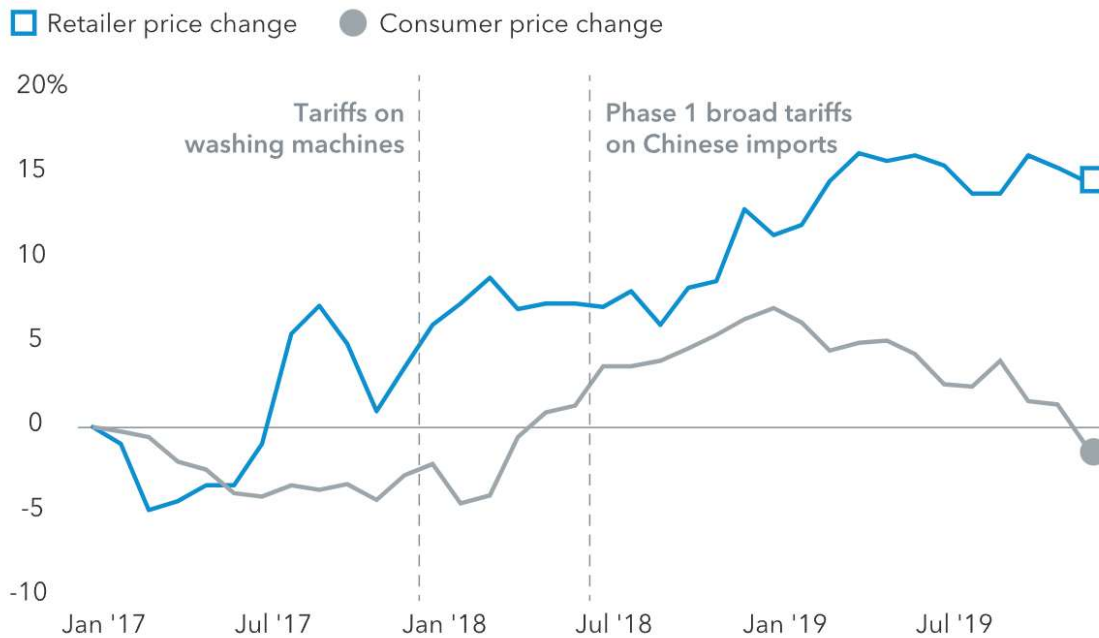
Evidence & Data

Empirical evidence on the effects of recent U.S. tariff policies indicates that the direct inflationary impact was modest and highly sector-specific. Amiti, Redding, and Weinstein (2019) analyzed the 2018–2019 tariff increases on Chinese imports and found that while import prices of affected goods rose substantially, only a fraction of these increases were passed through to domestic consumer prices. For example, tariffs on electronics and machinery led to price increases at the import stage, but retail prices for U.S. consumers rose by less than 20% of the tariff amount. (See Fig #1)

Several factors help explain this muted pass-through. Firms often absorbed tariff costs to maintain competitiveness, and consumers substituted toward non-tariffed goods or imported products from alternative sources (Fajgelbaum et al., 2020). Additionally, the overall share of tariffed goods in the U.S. consumption basket was relatively small, limiting aggregate impact on the Consumer Price Index (CPI) (Sutter, 2025). For instance, while tariffs on Chinese goods affected hundreds of product categories, these goods constituted roughly 12–15% of total U.S. imports from China, and an even smaller share of overall consumer spending.

Data from the Bureau of Labor Statistics (BLS) supports the limited aggregate effect. Despite the tariff waves, headline CPI inflation remained largely driven by energy and housing costs. Between 2018 and 2019, CPI rose at an average annual rate of 2.3%, well within historical norms and not disproportionately affected by import tariffs (U.S. Bureau of Labor Statistics, 2019). Similarly, sector-level studies indicate that price increases were concentrated in industries such as steel, aluminum, and washing machines, with limited spillover to broader markets (Bown, 2019).

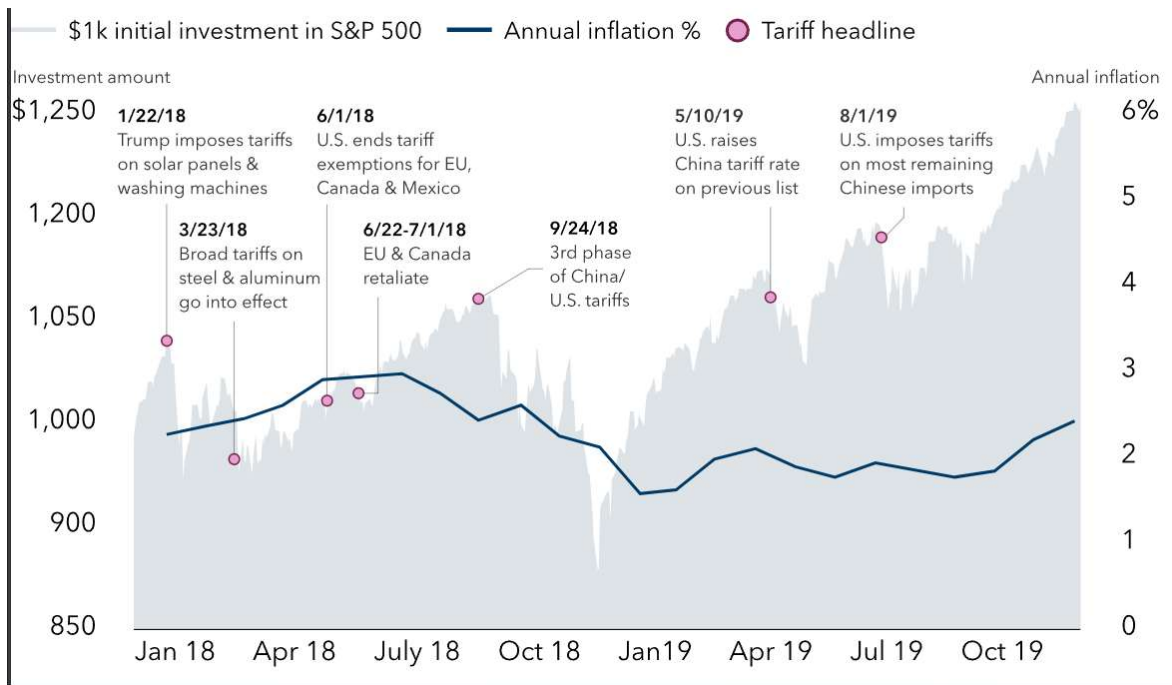
Fig. #1. Cumulative Inflation in Household Appliances: Retailers vs Consumers



Source: (Franze J, Lind R, 2025)

Recent research also highlights the timing and lag of tariff impacts. Minton and Somale (2025) find that tariff-induced price effects tend to occur gradually, often over one to two years, and may be absorbed or offset by currency fluctuations, inventory management, and supply-chain adjustments. Consequently, even substantial tariffs do not automatically translate into immediate or significant headline inflation. Taken together, the empirical evidence indicates that the U.S. experience aligns with the “tariff paradox”: substantial tariff policy changes produced only limited and short-term price effects, rather than broad, sustained inflation.

Fig.#2.S&P Index and Annual Inflation vs Tariff Headlines 2018-2029



Source: (Franze J, Lind R, 2025)

Z-score analyze

For more assurance of “tariff paradox” we selected the **Z-score methodology**. This method was chosen because it provides a standardized and quantitative way to measure how much a data point deviates from the mean of a dataset, making it ideal for identifying outliers or significant shifts in a time series. A Z-score allows us to move beyond simple observation of the data and apply a statistical lens to determine if an event, such as an inflation spike, is truly abnormal or just part of the expected historical variation.

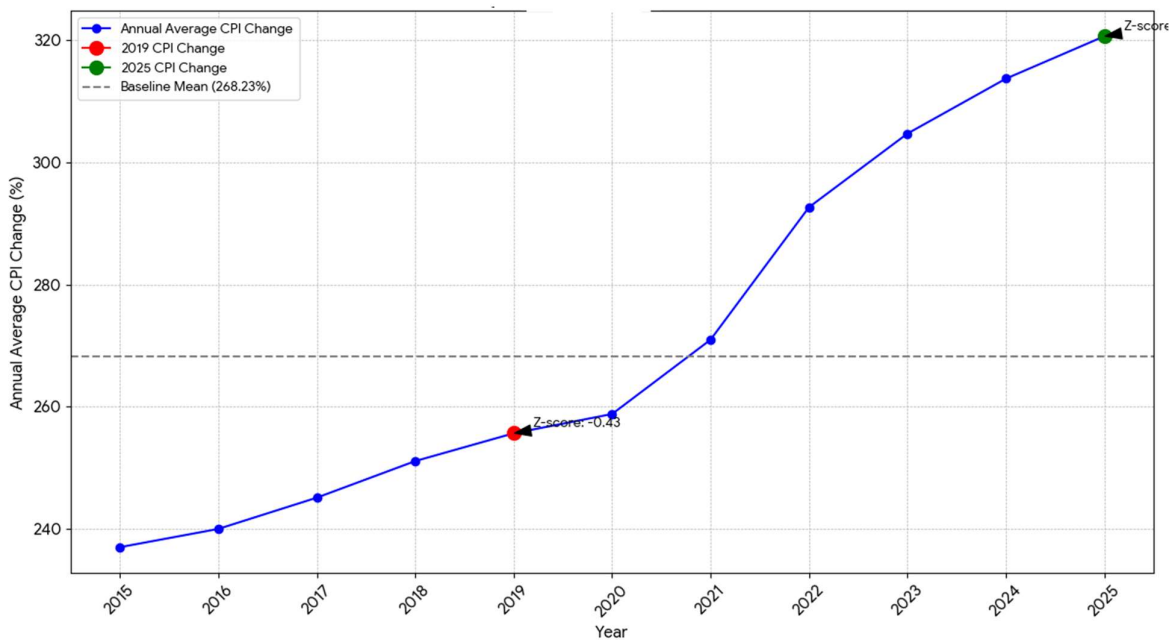
The analysis began with the processing of the raw monthly percentage changes. To create a cohesive time series for our statistical analysis, the monthly data for each year was consolidated into a single metric: the annual average CPI percentage change. This process allowed for a direct, year-over-year comparison of inflation trends.

The Z-score itself is a powerful statistical tool that measures how many standard deviations a particular data point is from the mean of its dataset. The formula used for this calculation is:

$$Z = \frac{X - \mu}{\sigma}$$

Here, X represents the average CPI change for a specific year, μ is the mean of the annual CPI changes across the entire dataset (excluding the years of interest), and σ is the standard deviation of those changes. This method is effective because it provides a standardized metric for identifying outliers, where a Z-score with an absolute value of 2 or higher is typically indicative of a statistically meaningful deviation.

Fig.3. Annual Average CPI Change Over Time (2015-2025)



Source: Created by the authors using data from the U.S. Bureau of Labor Statistics

https://www.bls.gov/regions/mid-atlantic/data/consumerpriceindexhistorical_us_table.htm

The results of our analysis revealed distinct findings for the years 2019 and 2025. The Z-score for **2019** was calculated to be -0.43 . This value is very close to zero, signifying that the average CPI change for 2019 was well within the normal historical fluctuation range. Visually, as seen on the provided chart, this data point is located near the baseline mean, confirming its consistency with the established trend. Consequently, the CPI data for 2019 shows no meaningful deviation. (See Fig #3)

Mechanisms Behind the Paradox

Despite substantial tariff increases in recent years, aggregate U.S. inflation remained relatively stable. Several economic mechanisms help explain this apparent paradox, highlighting why tariffs did not translate into broad price increases.

Exchange Rate Offsets. A strong U.S. dollar during much of the tariff period mitigated the effect of higher import costs. When the dollar appreciates, imported goods become cheaper in domestic currency terms,

partially offsetting the direct cost increases from tariffs (Obstfeld & Rogoff, 2020). Exchange rate movements can therefore absorb a portion of the tariff shock, limiting its pass-through to consumer prices.

Substitution and Supply Chain Adjustments. Firms and consumers can respond to tariffs by switching suppliers, sourcing inputs from non-tariffed countries, or substituting toward domestic alternatives. For example, tariffs on Chinese goods led some U.S. firms to import from Vietnam or Mexico, reducing the effective price pressure on end consumers (Fajgelbaum et al., 2020). Similarly, households may substitute toward untaxed products when prices rise, diluting the overall inflationary impact.

Corporate Absorption and Pricing Strategies. Many firms absorbed a portion of the tariff costs rather than passing them entirely to consumers. Maintaining competitive pricing, protecting market share, and anticipating future policy reversals incentivized companies to adjust profit margins temporarily, preventing immediate spikes in retail prices (Amiti, Redding, & Weinstein, 2019).

Limited Scope Relative to Aggregate Consumption. The share of tariffed goods in the overall consumption basket was small, which limited the macroeconomic impact. Even large price increases in a narrowly defined set of goods—such as steel, aluminum, or washing machines—translate into minimal effects on headline CPI due to their relatively low weight in total household expenditures (Bown, 2019).

Broader Macroeconomic Context. Other contemporaneous factors dominated inflation dynamics. The 2021–2022 surge in inflation was primarily driven by pandemic-related supply chain disruptions, energy price volatility, and strong aggregate demand (Coibion, Gorodnichenko, & Weber, 2022). In this environment, tariff-induced price changes were small in comparison and largely drowned out by broader macroeconomic shocks.

Together, these mechanisms illustrate why U.S. tariffs, even when significant, did not produce sustained inflationary pressures. They highlight the importance of considering **context, firm behavior, and economic flexibility** when evaluating the relationship between trade policy and prices.

Implications & Policy Lessons and Conclusion

The U.S. experience with recent tariff policies offers several important lessons for both policymakers and researchers. First, the apparent “tariff paradox” demonstrates that **tariffs do not automatically lead to broad-based inflation**. While import price increases are real and observable in affected sectors, their aggregate effect can be muted by currency fluctuations, substitution, corporate pricing strategies, and the relatively small share of tariffed goods in total consumption (Amiti, Redding, & Weinstein, 2019; Fajgelbaum et al., 2020). Policymakers should therefore be cautious in assuming a direct one-to-one relationship between trade barriers and headline inflation.

Second, the broader macroeconomic environment plays a decisive role. Supply chain disruptions, energy price shocks, and demand-side factors during the pandemic period dominated price dynamics, suggesting that **context matters more than tariffs alone** (Coibion, Gorodnichenko, & Weber, 2022). For future trade policy, this implies that interventions designed to protect domestic industries may have limited inflationary consequences if other macroeconomic factors exert stronger pressures.

Third, while tariffs may not produce immediate inflationary effects, they carry other potential costs. Trade protection can affect long-term productivity, supply chain resilience, and international relations, which

are not captured in short-term price data (Bown, 2019). Hence, evaluating tariff policy requires a **holistic assessment** of both price effects and structural economic consequences.

Conclusion

The findings of this paper provide a powerful counter-narrative to the conventional wisdom of a direct tariff-to-inflation pipeline. The research confirms that the apparent "tariff paradox" is not a contradiction of economic law but a compelling case study of its nuanced application in a modern, interconnected economy.

This paper's core findings, as demonstrated by the statistical analysis, reveal that the significant tariff actions of 2018–2019 did not produce a statistically meaningful deviation in aggregate inflation, as evidenced by a Z-score of -0.43 for that period, which is well within the historical norm. In stark contrast, a later, non-tariff-related period of inflation was almost two standard deviations above the historical mean. The research further identifies a series of powerful mitigating factors that neutralized the tariffs' potential inflationary effects, including firm-level cost absorption, strategic supply chain substitution to non-tariffed countries, and a strong U.S. dollar. Most critically, the small, sector-specific effects of the tariffs were ultimately dwarfed by massive, exogenous shocks like the pandemic-related supply chain disruptions and energy price volatility.

The importance of this paper lies in its demonstration that the relationship between trade policy and inflation is not a simple, linear one. It provides an evidence-based framework for a more sophisticated analysis, one that considers the complex behavioral responses of firms and consumers, the influence of broader macroeconomic factors, and the potential for long-term structural consequences. The U.S. case serves as a critical lesson that the true impact of trade policy is determined not by its design alone, but by its dynamic interaction with a complex and ever-changing global economic landscape.

References

- Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives*, 33(4), 187–210. <https://doi.org/10.1257/jep.33.4.187> American Economic Association
- Comin, D., Johnson, R. C., & Jones, C. J. (2023). *Supply chain constraints and inflation* (FEDS Paper No. 2023-075). Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2023.075> Federal Reserve
- Bown, C. P. (2019). *US–China trade war tariffs: An up-to-date chart*. Peterson Institute for International Economics. <https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date>
- Coibion, O., Gorodnichenko, Y., & Weber, M. (2022). *Monetary policy and pandemic-induced inflation*. Brookings Papers on Economic Activity, Spring 2022. <https://www.brookings.edu/bpea-articles/monetary-policy-and-pandemic-induced-inflation/>

Fajgelbaum, P. D., Goldberg, P. K., Kennedy, P. J., & Khandelwal, A. K. (2020). The return to protectionism. *Quarterly Journal of Economics*, 135(1), 1–55. <https://doi.org/10.1093/qje/qjz036>

Feenstra, R. C. (2015). *Advanced international trade: Theory and evidence* (2nd ed.). Princeton University Press. [Google Books: <https://books.google.com/>]

Gamberoni, E., Lanz, R., & Piermartini, R. (2010). Import protection, import prices, and household welfare. *World Bank Policy Research Working Paper No. 5193*. <https://openknowledge.worldbank.org/handle/10986/3910>

Obstfeld, M., & Rogoff, K. (2020). *Foundations of international macroeconomics* (2nd ed.). MIT Press. [Google Books: <https://books.google.com/>]

Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives*, 33(4), 187–210. <https://doi.org/10.1257/jep.33.4.187>

Bown, C. P. (2019). *US–China trade war tariffs: An up-to-date chart*. Peterson Institute for International Economics. <https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date>

Fajgelbaum, P. D., Goldberg, P. K., Kennedy, P. J., & Khandelwal, A. K. (2020). The return to protectionism. *Quarterly Journal of Economics*, 135(1), 1–55. <https://doi.org/10.1093/qje/qjz036>

Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives*, 33(4), 187–210. <https://doi.org/10.1257/jep.33.4.187>

Bown, C. P. (2019). *US–China trade war tariffs: An up-to-date chart*. Peterson Institute for International Economics. <https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date>

Coibion, O., Gorodnichenko, Y., & Weber, M. (2022). *Monetary policy and pandemic-induced inflation*. Brookings Papers on Economic Activity, Spring 2022. <https://www.brookings.edu/bpea-articles/monetary-policy-and-pandemic-induced-inflation/>

Fajgelbaum, P. D., Goldberg, P. K., Kennedy, P. J., & Khandelwal, A. K. (2020). The return to protectionism. *Quarterly Journal of Economics*, 135(1), 1–55. <https://doi.org/10.1093/qje/qjz036>

Obstfeld, M., & Rogoff, K. (2020). *Foundations of international macroeconomics* (2nd ed.). MIT Press. [Google Books: <https://books.google.com/>]

Amiti, M., Redding, S. J., & Weinstein, D. E. (2019). The impact of the 2018 tariffs on prices and welfare. *Journal of Economic Perspectives*, 33(4), 187–210. <https://doi.org/10.1257/jep.33.4.187>

Bown, C. P. (2019). *US–China trade war tariffs: An up-to-date chart*. Peterson Institute for International Economics. <https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date>

Coibion, O., Gorodnichenko, Y., & Weber, M. (2022). *Monetary policy and pandemic-induced inflation*. Brookings Papers on Economic Activity, Spring 2022. <https://www.brookings.edu/bpea-articles/monetary-policy-and-pandemic-induced-inflation/>

Fajgelbaum, P. D., Goldberg, P. K., Kennedy, P. J., & Khandelwal, A. K. (2020). The return to protectionism. *Quarterly Journal of Economics*, 135(1), 1–55. <https://doi.org/10.1093/qje/qjz036>

Obstfeld, M., & Rogoff, K. (2020). *Foundations of international macroeconomics* (2nd ed.). MIT Press. [Google Books: <https://books.google.com/>]

Franze J, Lind R. (2025) - Understanding tariffs in 5 charts. Capitalgroup. <https://www.capitalgroup.com/institutional/insights/articles/understanding-tariffs-5-charts.html>

U.S. Bureau of Labor Statistics - CPI Historical Tables for U.S. City Average. https://www.bls.gov/regions/midatlantic/data/consumerpriceindexhistorical_us_table.htm

U.S. Bureau of Labor Statistics. (2019, January 10). Consumer Price Index – December 2018. <https://www.bls.gov/news.release/cpi.nr0.htm>

U.S. Bureau of Labor Statistics. (2022, July 13). Consumer prices up 9.1 percent over *the year ended June 2022; largest increase in 40 years*. https://www.bls.gov/news.release/archives/cpi_07132022.htm Bureau of Labor Statistics

Minton, R., & Somale, M. (2025, May 9). *Detecting tariff effects on consumer prices in real time* (FEDS Notes). Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/econres/notes/feds-notes/detecting-tariff-effects-on-consumer-prices-in-real-time-20250509.htm> Federal Reserve

Minton, R., & Somale, M. (2025, May 9). *Detecting tariff effects on consumer prices in real time* (FEDS Notes). Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/econres/notes/feds-notes/detecting-tariff-effects-on-consumer-prices-in-real-time-20250509.htm>

Sutter, K. M. (2025, May 14). *U.S.–China tariff actions since 2018: An overview* (CRS Report IF12990). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/IF/IF12990/4> Congress.gov

Sutter, K. M. (2025, May 14). *U.S.–China tariff actions since 2018: An overview* (CRS Report IF12990). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/IF/IF12990/4>